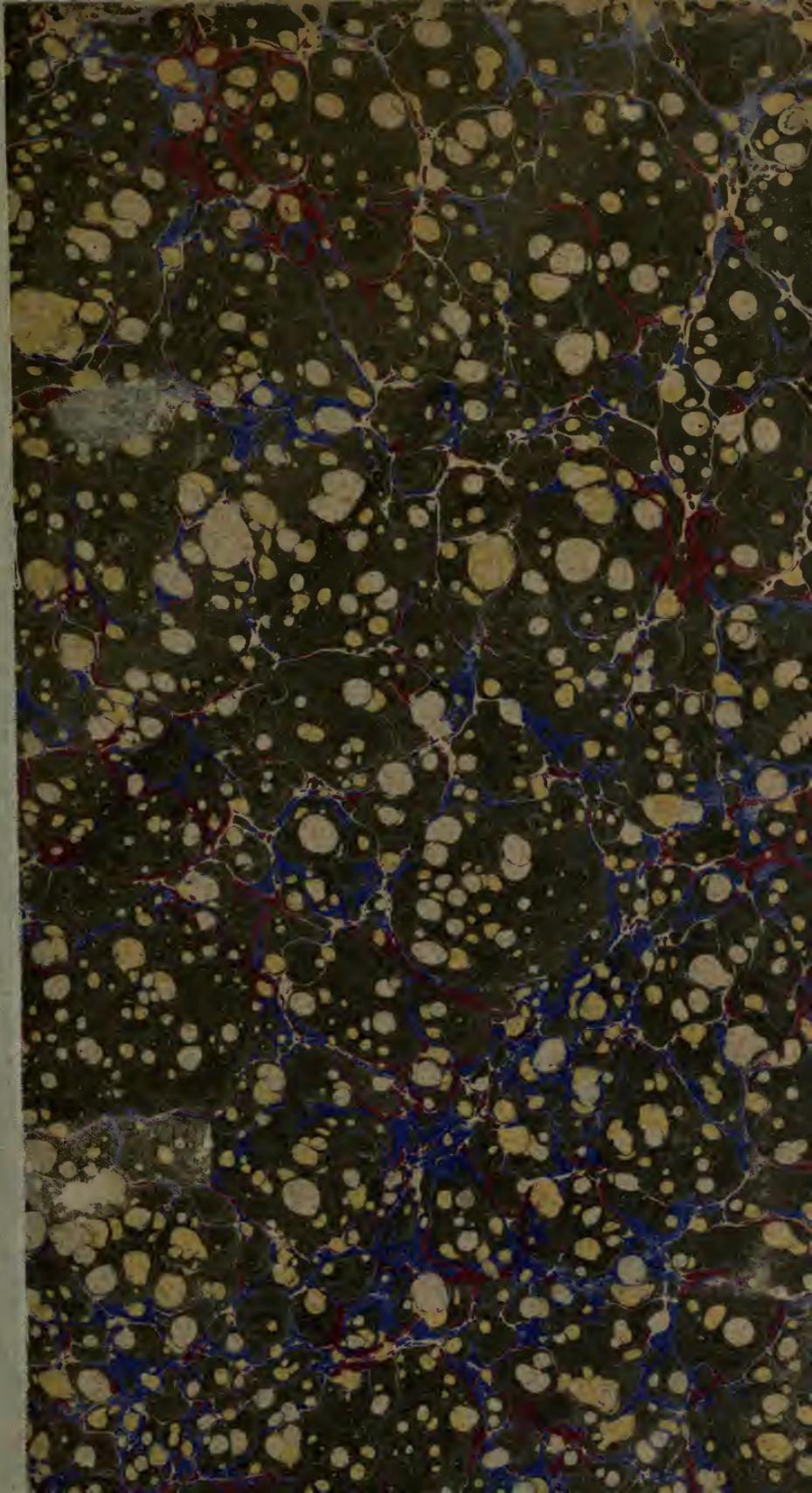




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OF THE

A M E R I C A N

Metrological Society.

ORGANIZED DECEMBER 30, 1873.

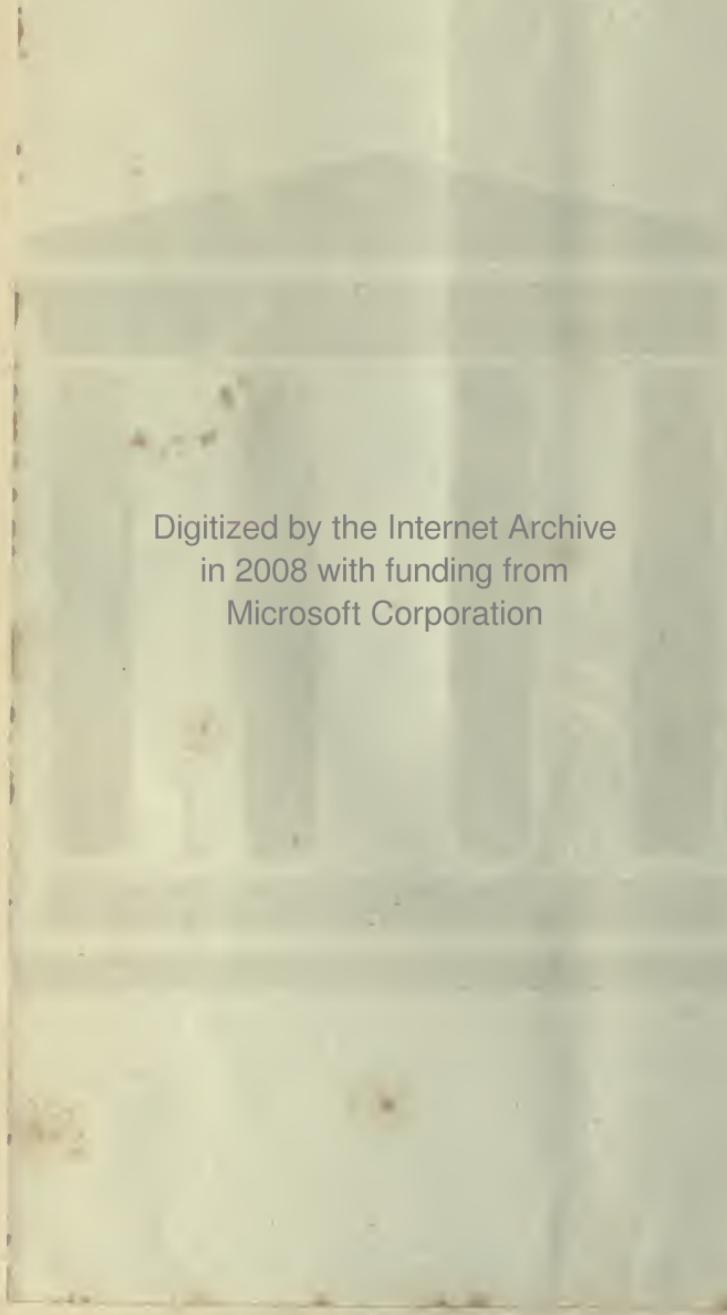
OFFICERS, COMMITTEES,

CONSTITUTION AND BY-LAWS.

NEW YORK:

GREGORY BROS., Pr's, 34 Carmine St.,

1879.



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Officers and Standing Committees OF THE AMERICAN METROLOGICAL SOCIETY.

OFFICERS FOR 1879.

President, F. A. P. BARNARD, S. T. D., LL. D., L. H. D.,	President of Columbia College, New York.
Vice-President, J. E. HILGARD, - - - - -	U. S. Coast Survey.
Rec. Secretary, T. EGLESTON, E. M., Ph. D., LL. D.,	Prof. of Mineralogy, School of Mines, New York.
Cor. Secretary, A. M. MAYER, Ph. D.	Prof. of Physics, Stevens Inst. of Technology, Hoboken.
Treasurer, T. EGLESTON, Prof. of Metallurgy, School of Mines,	Columbia College, New York.

COUNCIL.

HON. SAMUEL B. RUGGLES, LL. D.	- - - - -	New York.
C. S. LYMAN, - - - - -	Prof. of Physics, Yale College.	
HENRY DRAPER, - - - - -	Prof. of Chemistry, New York University.	
W. MILNOR ROBERTS, - - - - -	Pres't Amer. Soc. of Civil Engineers.	
MELVIL DEWEY, - - - - -	Sec. Metric Bureau, Boston, Mass.	
H. A. NEWTON, LL. D., - - - - -	Prof. of Mathematics, Yale College.	
T. R. PYNCHON, LL. D., D. D., - - - - -	Pres. Trinity Coll., Hartford, Conn.	
E. B. ELLIOTT, - - - - -	Statistician, U. S. Treas. Dept.	
WOLCOTT GIBBS, M. D., LL. D., - - - - -	Prof. of Chemistry, Harvard Univ.	
CLEVELAND ABBE, - - - - -	Signal Office, War Dept.	

COMMITTEES.

Committee on Units of Force and Energy.

H. A. NEWTON, LL. D.,	Prof. of Mathematics, Yale College.
WOLCOTT GIBBS, M. D., LL. D.,	Rumford, Prof. Harvard University.
J. E. HILGARD,	U. S. Coast Survey.
R. H. THURSTON, Prof. of Mechanical Engineering, Stevens Inst. of	Technology, Hoboken.
C. S. PEIRCE,	U. S. Coast Survey.

Committee on International Coinage.

E. B. ELLIOTT,	Statistician, U. S. Treas. Dept.
N. M. BECKWITH,	Com. Gen. to Paris Exposition, 1867.
C. S. LYMAN,	Prof. of Physics, Yale College.
WOLCOTT GIBBS, M. D., LL. D.,	Rumford, Prof. Harvard Univ.

Committee on Mural Standards.

T. R. PYNCHON, LL. D., D. D.,	Pres. Trinity Coll., Hartford.
J. E. HILGARD,	U. S. Coast Survey.
MELVIL DEWEY,	Sec. Metric Bureau, Boston.
E. B. ELLIOTT,	Statistician, U. S. Treas. Dept.

Committee on Standard Time.

CLEVELAND ABBE,	Signal Office, War Dept.
E. B. ELLIOTT,	Statistician, U. S. Treas. Dept.
C. S. PEIRCE,	U. S. Coast Survey.
H. A. NEWTON, LL. D.,	Prof. of Mathematics, Yale College.

Committee to Memorialize Congress.

T. R. PYNCHON, LL. D., D. D.,	Pres. Trinity College, Hartford.
H. A. NEWTON, LL. D.,	Prof. of Mathematics, Yale College.
Hon. S. B. RUGGLES, LL. D.,	New York.
E. B. ELLIOTT,	Statistician, U. S. Treas. Dept.
F. A. P. BARNARD, S. T. D., LL. D., L. H. D.,	Pres. Columbia College.

Committee on Variation of Measures.

E. B. ELLIOTT,	Statistician, U. S. Treas. Dept.
Hon. J. A. KASSON,	U. S. Minister at Vienna, Austria.
H. A. NEWTON, LL. D.,	Prof. of Mathematics, Yale College.

Committee on a Standard Gauge.

J. E. HILGARD,	U. S. Coast Survey.
R. H. THURSTON, Prof. of Mechanical Engineering, Stevens Inst. of	Technology, Hoboken.
T. EGLESTON, E. M., Ph. D., LL. D.,	Prof. of Mineralogy, School of Mines.

Publication Committee.

President, F. A. P. BARNARD, S. T. D., LL. D., L. H. D.,	Pres. Columbia College.
Rec. Secretary, T. EGLESTON, E. M., Ph. D., LL. D.,	Prof. of Metallurgy, School of Mines.
Cor. Secretary, A. M. MAYER, Ph. D., Prof. of Physics, Stevens Inst. of	Technology, Hoboken

CONSTITUTION.

ARTICLE I.

Name.

This Association shall be called THE AMERICAN METROLOGICAL SOCIETY.

ARTICLE II.

Objects of the Society.

SECTION 1.—The primary object of this Association shall be to improve the systems of Weights, Measures and Moneys, at present existing among men, and to bring the same, as far as practicable, into relations of simple commensurability with each other.

SECTION 2.—A further object will be to secure the universal adoption of common units of measure for the expression of quantities which require to be stated in presenting the results of physical observation or investigation, and for which the ordinary systems of metrology do not provide ; such as the divisions of the barometer, thermometer and densimeter ; the amount of work done by machines ; the amount of mechanical energy, active or potential, of bodies, as dependent on their motion or position ; the quantities of heat present in bodies at given temperatures, or generated by combustion or otherwise ; the quantity and intensity of electro-dynamic currents ; the aggregate and the efficient power of prime movers ; the accelerative force of gravity ; the pressure of steam and of the atmosphere ; and other matters analogous to these. The association will endeavor also to secure uniformity of usage in regard to standard *points of reference*, or to those physical conditions to which observations must be reduced for purposes of comparison ; especially the temperature and pressure to which are referred the specific gravities of bodies, and the zero of longitude on the earth.

SECTION 3.—In regard to the denominations of weight, measure and money which are derived from the unit-bases, the Association will labor to secure, as far as may be, the acceptance of the system of decimal derivation ; not necessarily to the exclusion for practical purposes of the binary or other convenient methods of division ; but maintained along with such other methods, on account of the facilities for calculation, for reductions, and for comparison of values, afforded by a system which conforms to that of our numerical notation.

ARTICLE III.

Modes of Operation.

SECTION 1.—The Society will endeavor to carry out the objects set forth in the foregoing article, by appeals addressed to Congress, to the Legislatures of the several States, to Boards of Education, to the higher institutions of learning, and to the directors and teachers of schools of every grade throughout the country ; urging upon them the adoption of measures in their several spheres for the diffusion of information as to the present state of the world's metrology, and as to the recent progress of metrological reform, and especially for the instruction as to these matters of the rising generation ; to the end that the people of the country may be early and fully prepared to act intelligently upon the important questions connected with this subject.

SECTION 2.—The Society will also invoke the aid and co-operation, for the purposes above stated of bodies organized for the consideration of questions of scientific or of social interest, and of Boards of Trade, Chambers of Commerce, Societies of Engineers, Industrial Associations, professions and trades in this country and elsewhere.

SECTION 3.—Upon Scientific bodies, the Society will especially press the importance of opening communications with similar bodies in other countries, with a view to a general agreement upon the values to be henceforth uniformly given to the units of measure and points of reference which particularly concern them, or in other words, to the so-called constants of science.

SECTION 4.—They will memorialize Congress from time to time, or so long as it may be necessary, in favor of the enactment of laws requiring the use, in certain departments of the public service, of the metric system of weights and measures where such legislation may tend to relieve commerce of some of its burdens, to facilitate international communication, to promote international jurisprudence, and to familiarize our own people with the benefits of that system of metrology, with the least interference with their ordinary habits of thought, or daily business.

SECTION 5.—The Society will, furthermore, endeavor to promote its objects by appeals addressed directly to the people through the public press ; and by the circulation, so far as its means may allow, of documents designed to inform the public mind, or of books adapted to the instruction of youth, as to the defects of the common system of weights and measures, as to the means most proper for its amendment, and as to the great advantages which the acceptance of a universal system would insure to all mankind.

ARTICLE IV.

Organization.

SECTION 1.—The officers of this Association shall be a President, a Vice-President, a Recording Secretary, a Corresponding Secretary, and a Treasurer, all of whom shall be elected annually, by ballot, and who shall hold their offices for one year and until their successors shall be elected.

SECTION 2.—A Council consisting of the five officers enumerated in the foregoing section, together with ten other members chosen by ballot at the same time from among the members of the Society not holding office, shall be created with power to conduct the business of the Society in the intervals between the meetings, under such regulations and restrictions as may be imposed in the By-Laws. A majority of the members of the Council shall constitute a quorum.

SECTION 3.—The Council shall be charged with the duty of examining all papers which may be presented by members or others, either to be read at the meeting; or to be published by the Society; and no papers shall be so read or so published which shall not have first been approved by the Council; but this section shall not limit the right of any member of publishing his own opinions on his own responsibility.

ARTICLE V.

Of Membership.

SECTION 1.—Any person may be admitted as a member of this Association, after having been duly nominated in the manner hereinafter prescribed, by vote of a majority of the members present at the meeting at which said nomination shall be made. The election may be by *viva voce* voting or by ballot, as the Society may order.

SECTION 2.—All names of persons proposed for membership shall be first presented to the Council, who shall nominate to the Society for election only such as they may approve.

SECTION 3.—Every member of the Society shall pay annually to the Treasurer such sum as may be fixed by the By-Laws under the name of annual dues; such payment to be made in advance at the time of the annual meeting held for the election of officers.

SECTION 4.—Every member shall be at liberty to present to the Society in writing, his views on any subject connected with metrological or monetary reform in any of its aspects, or to present original papers of similar character from persons not members, provided such communications, or abstracts thereof, shall have been examined and their reading approved by the Council.

SECTION 5.—Any member of the Society after having been an active member in good standing for five years, may at his own request, be released from the payment of dues, and made an honorary member, retaining all the privileges of membership except the right to hold office or to vote; but honorary membership shall not be conferred upon any person by election, or in any other manner but as herein above provided. Foreign corresponding members of this Association may be nominated by the Council and elected by the Society.

ARTICLE VI.

Of Meetings.

SECTION 1.—There shall be two stated meetings of the Society annually, (and the members present shall constitute a quorum,) the time and place of which shall be fixed by the By-Laws ; except as to the annual meeting for the election of Officers, which shall be held in the City of New York on the 27th, 28th, 29th, or 30th day of December in each year, as the Council may determine.

SECTION 2.—Special meetings may be called by the Council, or by a majority of the members of the same, whenever there exist reasons of sufficient importance, in their judgment, to justify such a measure.

ARTICLE VII.

Amendments of the Constitution.

This Constitution may be amended by vote of two-thirds of the members present at two successive stated meetings, subject to the following regulations :—The first vote may be taken at the stated meeting at which the amendment is proposed, but shall not be taken on the same day on which the proposition is made. The second vote shall be taken at the stated meeting next ensuing ; and previously to the assembling in said ensuing meeting, the Recording Secretary shall furnish to every member of the Society a printed copy of said proposed amendment, and a statement of the time at which the same will come up for final action. If, after the observance of these provisions, the said proposed amendment shall be a second time sustained by a two-thirds vote, it shall have force and be valid as an integral part of this Constitution.

BY-LAWS

OF THE

AMERICAN METROLOGICAL SOCIETY.

Meetings of the Society.

1.—Previously to the annual meeting, or to any special meeting of the Society, a committee of arrangements shall be appointed by the President, to consist of members resident in the place of the proposed meeting, or of any other residents of such place favorable to the objects of the Society, whose duty it shall be to engage suitable apartments for the meeting, and to make such other provisions as may be necessary to facilitate the transaction of business.

2.—Due notice of every meeting, regular or special, shall be given to every member of the Society by the Recording Secretary.

3.—Every member attending any meeting shall give his name to the Recording Secretary, or inscribe it in a book provided for the purpose, as early as convenient after his arrival; and, if possible, before the meeting is called to order.

4.—The meeting shall be called to order at the hour specified in the notice. In the absence of any officer, a member may be appointed to discharge his duties temporarily by a plurality of voices on open nomination.

5.—The order of business observed in the meetings shall be as follows:

1. Report of the Council on the progress of business.
2. Report of the Treasurer.
3. Nominations to membership and election of members.
4. Consideration of questions suggested by the report of the Treasurer.
5. Consideration, in their order, of matters presented in the report of Council, which require the action of the Society.
6. Reading of papers.
7. Discussion of topics suggested by the papers read.
8. Resolutions.
9. Miscellaneous business.
10. Adjournment. But before the vote on adjournment is taken, the Recording Secretary shall read the rough minutes of the meeting of the day for correction and approval; and at the close of the final meeting of the session, the Secretary shall read the engrossed minutes of the entire session for the same purpose, unless or except so far as the reading may be dispensed with by a vote of the Society.

6.—The order of business may at any time be suspended by vote of a majority.

7.—The rules of order to be observed in the transaction of business, shall be those of the Senate of the United States, but these rules may be suspended by unanimous consent.

Meetings of the Council.

8.—On the day appointed for any meeting of the Society, the Council shall meet for the preparation of business one hour previously to the hour appointed for such meeting.

9.—Special meetings of the Council may at any time be called by the President; and it shall be the duty of the President to issue such call on the request, in writing, of three members of the Council.

Dues.

10.—The amount of the annual dues to be paid by each member, under Section 3, Article V. of the Constitution, is fixed at five dollars.

Publication.

11.—Publication shall be made of the proceedings of the Society in such journals as may be disposed to insert them free of charge. Such proceedings shall also be printed under the superintendence of the Recording Secretary, in form suitable for preservation.

12.—A committee on the publication of papers shall be appointed by the Council, who shall have authority, so far as the means of the Society may allow, to publish for general distribution any document proper to diffuse information among the people as to the advantages of an improved metrology, or of the unification of the monetary systems of the world.

Correspondence.

13.—The President and Corresponding Secretary shall take measures to establish a correspondence between this Society and any others instituted for similar purposes in this country or abroad, and shall invite an interchange of opinions with such, as to the most judicious measures to be jointly or severally adopted for the attainment of their common objects. They shall present copies of the publications of this Society to all such associations, and solicit a reciprocation of similar good offices.

14.—The same officers shall also maintain with scientific and other organized bodies in the United States and in foreign countries, such communications as the Council may direct, having in view to give effect to the provisions of Section 2, Article II. and of Sections 2 and 3, Article III. of the Constitution.

Financial Control.

15.—An auditing committee shall be appointed by the Council, whose duty it shall be to make an examination of the accounts of the Treasurer at the close of each year, and who shall report to the Council before the annual meeting.

Contributions.

16.—For the purpose of meeting any expenditures which may seem to be necessary in order to carry out important measures to which the resources of the Society may be inadequate, the Council are authorized, in their discretion, to invite contributions from the friends of metrological or monetary reform, for the accomplishment of such objects.

Property of the Society.

17.—The Council shall endeavor to obtain, by purchase or otherwise, for the use of the Society, all publications relating to monetary or metrological systems, which, in their judgment, it may be desirable to possess; and all books or documents thus acquired, and all other movable property of the Society, except its funds, shall remain, until otherwise ordered, in the custody of the Recording Secretary.

18.—A stamp or label bearing the name of the Society shall be affixed to every book, document or other article of property belonging to the Society.

Forfeiture of Membership.

19.—Any member whose dues shall have remained in arrears for two entire years, and who shall, on notice given by the Treasurer, fail to make payment of the same within three months after the service of such notice, shall be liable to forfeit his right to membership and to have his name dropped from the roll.

20.—Any member of whom any act shall have been proved unbecoming an association of gentlemen, may be excluded from this Association by a vote of the majority of the members present at the meeting when such proof shall have been submitted; but no member shall be so proceeded against who shall not have had notice of the imputations made upon him, and have had full opportunity for defence.

Amendments.

21.—These By-Laws may be amended by vote of a majority of the members of the Council, provided that notice of the proposed amendment shall have been duly given to every member of the Council one month before action is taken. Votes on amendments may be given by proxy, communicated under seal to the Recording Secretary, to be opened by him in presence of the President.





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